

**DIVISION 10**  
**SPECIALTIES**

## **SECTION 10210 - METAL WALL LOUVERS**

### **PART 1 - GENERAL**

#### **1.01 WORK INCLUDED**

- A. Louvers and frames
- B. Sealants
- C. Bird and insect screening

#### **1.02 WORK INSTALLED BUT FURNISHED UNDER OTHER SECTIONS**

- A. Division 7 - Joint Sealers; Perimeter sealants

#### **1.03 WORK FURNISHED BUT INSTALLED UNDER OTHER SECTIONS**

- A. Furnish head, jamb, and sill flashings as shown or trim as required for weathertight installation.

#### **1.04 RELATED WORK**

- A. Division 4 - Masonry
- B. Division 5 - Metal Fabrications
- C. Division 6 - Carpentry work: Supplementary blocking or framing for wall opening.
- D. Division 7 - Joint Sealers.
- E. Division 9 - Painting.
- F. Section 15830 - Air Outlets and Inlets.

#### **1.05 REFERENCES**

- A. AMCA 500 - (Air Movement Council Association) Test Method for Louvers, Dampers, and Shutters.
- B. ANSI/ASTM B221 - Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- C. ASTM B209 - Aluminum-Alloy Sheet and Plate.

#### **1.06 SYSTEM PERFORMANCE**

- A. Louver shall have performance as scheduled in mechanical drawings and meet criteria of mechanical specifications.

#### **1.07 QUALITY ASSURANCE**

- A. Manufacturer: Company specializing in manufacture of AMCA certified louvers with three years experience.

#### **1.08 SUBMITTALS**

- A. Submit shop drawings and product data per Section 15010.

- B. Indicate on shop drawings, layout, elevations, dimensions, and tolerances; head, jamb, and sill details; blade configuration; screening; and frames.
- C. Provide product data on preassembled louvers describing design characteristics, maximum recommended air velocity, free area, materials, and finishes.
- D. Submit samples as indicated under provisions of Section 15010. Submit two samples 6 x 6 inches in size illustrating finish and color of exterior and interior prefinish.
- E. Submit manufacturer's installation instructions per Section 15010.

## **1.09 COORDINATION**

- A. Coordinate work of this Section with installation of masonry flashings.

## **PART 2 - PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Design basis: Ruskin
- B. Alternates: Airstream, Carnes, Louvers and Dampers, or approved equal per Section 15010.

### **2.02 MATERIALS**

- A. Aluminum: ANSI/ASTM B221, alloy, mild temper; extruded shape, ASTM B209, alloy, hard temper, sheet, prefinished with mill applied modified fluoro-carbon paint finish.
- B. Fasteners and Anchors: Stainless steel type.

### **2.03 ACCESSORIES**

- A. Bird Screen: Interwoven wire mesh of aluminum, 0.063 inch diameter wire, 1/2 inch open weave, square design.
- B. Insect Screen: aluminum mesh, set in aluminum frame.
- C. Primer: Zinc chromate, alkyd type.
- D. Flashings: Of same material as louver frame. Sheet aluminum.
- E. Sealants: Specified in Section 07900.

### **2.04 FABRICATION**

- A. Sizes: As scheduled on mechanical drawings.
- B. Louver Blade: Sloped as scheduled; shape as scheduled; reinforced as required; minimum material thickness of 20 gage, integral waterstops on blade for storm-proof type.
- C. Louver Frame: Channel shape, welded corner joints, material thickness of 18 gage minimum.
- D. Mullions: Concealed aluminum, profiled to suit louver frame.
- E. Head, Jamb, and Sill Flashings: Roll formed to required shape, one piece per location.

- F. Screens: Permanently install screen mesh in shaped frame with reinforced corner construction; screw to louver frame.

## **2.05 FINISHES**

- A. Exterior Aluminum Surfaces: Finished in color as scheduled on drawings.
- B. Interior Aluminum Surfaces and Screens: Color finish not required.

## **PART 3 - EXECUTION**

### **3.01 INSPECTION**

- A. Verify that prepared openings and flashings are ready to receive work and opening dimensions are as indicated on shop drawings.
- B. Beginning of installation means acceptance of existing conditions.

### **3.02 INSTALLATION**

- A. Install louver assembly in accordance with manufacturer's instructions.
- B. Install louvers level and plumb.
- C. Secure louvers in opening framing with concealed fasteners, removable for maintenance purposes.
- D. Install flashings and align louver assembly to ensure moisture shed from flashings and diversion of moisture to exterior.
- E. Install bird and insect screening to interior of louver.
- F. Install perimeter sealant and backing rod in accordance with Division 7.

### **3.03 ADJUSTING AND CLEANING**

- A. Clean surfaces and components.

END OF SECTION

## **SECTION 10440 - SPECIALTY SIGNS**

### **PART 1 - GENERAL**

#### **1.01 SCOPE OF WORK**

- A. Section Includes: Extent of specialty signs as shown on Drawings, on Signage Schedule, and as specified herein.
  - 1. Note: Cast metal plaque, handicapped access signs, and exterior freestanding signs are required unless not indicated under "Forms of Specialty Signs" below.
- B. Forms of specialty signs required include the following:
  - 1. Panel signs.
  - 2. Cast metal plaques.
  - 3. Exterior freestanding signs.
- C. Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to Work of this Section.

#### **1.02 SUBMITTALS**

- A. Shop Drawings: Submit Shop Drawings covering the items included under this Section. Shop Drawing submittals shall include:
  - 1. Drawings for fabrication and erection of specialty signs. Include the following:
    - a. Plans, elevations, and large-scale details of sign wording and lettering layout.
    - b. Anchorages and accessory items indicated.
    - c. Location template Drawings for items supported or anchored to permanent construction.
    - d. Furnish full-size rubbings for metal plaques.
  - 2. Submit manufacturer's technical data and installation instructions for each type of sign required.
  - 3. Submit samples of each sign form and material showing finishes, colors, surface textures, and qualities of manufacturer and design of each sign component including graphics.
  - 4. Prior to beginning plaque fabrication review process, the Contractor shall coordinate the text size and content with the Engineer. Prior to plaque fabrication, the Contractor shall submit a full size plaque rubbing to the Engineer for final review.

#### **1.03 QUALITY ASSURANCE**

- A. Uniformity of Manufacturer: For each sign form and graphic image process indicated, furnish products of a single manufacturer.

### **PART 2 - PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Subject to compliance with specified requirements, manufacturers offering products which may be incorporated in Work include:
1. Panel Signs, and Exterior Freestanding Signs:
    - a. ABC Signing Division of Nelson-Harkins Industries.
    - b. Andco Industries Corp.
    - c. APCO Graphics, Inc.
    - d. Architectural Graphics, Inc.
    - e. ASI Sign Systems, Inc.
    - f. Charleston Industries, Inc.
    - g. DGS Corp.
    - h. Diskey Sign Corporation.
    - i. Mohawk Sign Systems.
    - j. Spanjer Brothers, Inc.
    - k. The Supersine Company.
  2. Plaques:
    - a. A.C. Davenport and Son.
    - b. Andco Industries, Inc.
    - c. A.R.K. Ramos Manufacturing Company, Inc.
    - d. ASI Sign Systems, Inc.
    - e. Matthews.
    - f. Metal Arts, Division of L&H Manufacturing Co.
    - g. Metallic Arts.
    - h. Spanjer Brothers, Inc.
    - i. The Southwell Company.
    - j. The Supersign Company.

## 2.02 MATERIALS

- A. Fiberglass (Exterior Signs): Provide molded seamless thermosetting glass-fiber-reinforced polyester panels in sizes and thicknesses indicated, with a minimum tensile strength of 15,000 psi when tested in accordance with ASTM D 638, and a minimum flexural strength of 30,000 psi when tested in accordance with ASTM D 790.
- B. Cast Acrylic Sheet: Provide cast (not extruded or continuous cast) methacrylate plastic sheet, in sizes and thicknesses indicated; with a minimum flexural strength of 16,000 psi when tested in accordance with ASTM D 790, a minimum allowable continuous service temperature of 176 degrees F (80 degrees C), and of the following general types:
  - 1. Opaque Sheet: Where sheet material is indicated as "opaque," provide colored opaque acrylic sheet in colors and finishes indicated or, if not indicated, as selected by Owner from manufacturer's standards.
- C. Aluminum Sheet: Provide aluminum sheet of alloy and temper recommended by the aluminum producer or finisher for the type of use and finish indicated, and with not less than the strength and durability properties specified in ASTM B 209 for 5005-H15.
- D. Aluminum Extrusions: Provide aluminum extrusions of alloy and temper recommended by the aluminum producer or finisher for type of use and finish indicated, and with not less than the strength and durability properties specified in ASTM B 221 for 6063-T5.
- E. Bronze Castings: Provide bronze castings, copper Alloy UNS C83600, complying with the requirements of ASTM B 584. Casting shall be free from pits, scale, sand holes, or other defects.
  - 1. Border Style: 1/4-inch single line with beveled edge.
  - 2. Background: Leatherette.
  - 3. Letters: Polished face – raised 1/8- inch.
  - 4. Material: Cast bronze.
  - 5. Size: 24" x 30"
  - 6. Text: Size, style, and content shall be selected by Owner (for bidding purposes only, text can cover as much as 60 percent of the total plaque surface).
  - 7. Quantity: One (1).
  - 8. Finish: As indicated in "Finish" article.
  - 9. Color(s): As selected by Owner.
- F. Fasteners: Unless otherwise indicated, used concealed fasteners fabricated from metals that are noncorrosive to either the sign material or the mounting surface.
- G. Anchors and Inserts: Use nonferrous metal or hot-dipped galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.
- H. Provide posts for all exterior signs. Posts shall be 2" x 3 1/4" aluminum, durandic finish, color selected by Owner.

## 2.03 FABRICATION

- A. Graphic Image Process:
1. Graphic Content and Style: Provide sign copy to comply with the requirements indicated for sizes, styles, content, positions, finishes and colors of letters, numbers, symbols, and other graphic devices as Scheduled at end of this Specification. Handicap access bathrooms shall have 1-1/4-inch-high lettering.
  2. Interior Panel Signs: Fabricate panel signs to comply with the requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes, and details of construction.
    - a. Frames for Panel Signs: Fabricate frames from a continuous piece of extruded aluminum angle, 1/8-inch thick by 1/2-inch deep. Duranodic finish in a color selected by Owner, square corners with no sharp edges, 1/8-inch backup plate, prepared for mechanical fastener mounting, and frame size to allow 1/16 inch reveal around sign insert.
    - b. Raised Sign Panels: Signs shall be 1/8-inch-thick acrylic plastic with 1/32-inch raised letters and Grade 2 Braille complying with Americans with Disabilities Act (ADA) of 1990. Letters shall be of a contrasting color with their background. Braille shall be of an integral color and material with their background. Braille tags shall not be used.
- B. Cast Metal Plaques: Fabricate cast plaques to comply with requirements specified for metal, border style, background texture, and finish. Produce castings free from pits, scale, and sand holes or other defects. Hand tool and buff borders and raised copy to produce the manufacturer's standard satin polished finish. Refer to "Finish" Article for other finish requirements. Plaque to be 24 inches by 30 inches by 1/2 inch, minimum. The inscription to be placed on the plaque will be furnished by Owner after approval of the plaque manufacturer, and after OWNER provides the desired names, information, and text, which will be during the later stages of the construction period.
1. Metal: Bronze.
  2. Border Style: 1.4-inch single line with beveled edge.
  3. Background Texture: Leatherette.
  4. Background Finish: Provide dark statuary finish to comply with the requirement specified and "Finish" Article for bronze finishes except provide background texture finish specified above in lieu of mechanical finish indicated.
- C. Exterior Freestanding Signs:
1. Non-illuminated Composite Fiberglass Box-Type Panels: Provide composite box sign message panel with molded fiberglass outer shell bonded to internal reinforcing. Comply with the following requirements:
    - a. Panel Face: Seamless 0.125-inch-thick molded fiberglass.
    - b. Finish: Manufacturer's standard semi gloss finish with ultraviolet inhibitors.
    - c. Internal Panel Structure: Extruded aluminum frame supports with impregnated honeycomb core.
    - d. Corner Condition: Square corners.
  2. Copy Embedded in Fiberglass Panels: Apply computer-generated adhesive graphics to panel as a masking material. Apply acrylic polyurethane background color floodcoats, 0.015-inch minimum thickness. Include ultraviolet inhibitors. Remove masking material.



3. Post shall be 2-inch by 3-1/4-inch aluminum, duranodic finish, color to be selected by Owner. Letter style, helvetica medium. Size of face panels, 36-inch by 60-inch.

## 2.04 FINISHES

- A. Colors and Surface Textures: For exposed sign material that requires selection of materials with integral or applied colors, surface textures, or other characteristics related to appearance, provide color matches indicated, or if not indicated, as selected by Owner from manufacturer's standards.
- B. Metal Finishes: Comply with NAAMM "Metal Finishes Manual" for finish designations and application recommendations.
- C. Aluminum Finishes:
  1. Baked Enamel Finish: Provide finish AA-M4xC12C42R1x (manufacturer's standard nondirectional mechanical finish including sanding and filing, cleaning with inhibited chemicals, conversion coated with an acid-chromate-fluoride-phosphate treatment, and painted with organic coating specified below).
    - a. Organic Coating: Provide manufacturer's standard thermosetting enamel system consisting of a prime coat and a finish coat.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

- A. Deliver all signs to Owner. Owner will be responsible for installation of signage and accessories where shown or Scheduled, unless otherwise indicated.

### 3.02 CLEANING AND PROTECTION

- A. At completion of installation, clean soiled sign surfaces in accordance with manufacturer's instructions. Protect units from damage until acceptance by Owner.

### SIGNAGE SCHEDULE

BUILDING/TYPE	TEXT	QUANTITY	SIZE	STYLE / COLOR	GENERAL LOCATION
	POTABLE WATER	15	10x14	AS SELECTED	PW HYDRANTS/SINKS
	NON POTABLE WATER	25	10x14	AS SELECTED	AT NPW HYDRANTS/ CONNECTIONS
	WARNING AREA UNDER 24-HR VIDEO SURVEILLANCE	4	10 x 14	AS SELECTED	AS SELECTED
	AUTHORIZED (PERSONNEL ONLY)	10	10 x 14	AS SELECTED	AS SELECTED
	CONFINED SPACE ENTRY - AUTHORIZED PERSONNEL ONLY	45	10x14	AS SELECTED	ON ALL HATCHES, AND AS DIRECTED BY ENGINEER
	MAIN ELECTRICAL ROOM	2	10x14	AS SELECTED	ON DOOR TO ELECTRICAL ROOM

END OF SECTION

## **SECTION 10441 - FIRE EXTINGUISHERS**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. Section includes portable, hand-carried fire extinguishers and mounting brackets for fire extinguishers.

#### **1.02 SUBMITTALS**

- A. Product Data: For each type of product.
- B. Warranty: Sample of special warranty.
- C. Operation and maintenance data.

#### **1.03 WARRANTY**

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace fire extinguishers that fail in materials or workmanship within specified warranty period; warranty period shall be six years from date of Substantial Completion.

### **PART 2 - PRODUCTS**

#### **2.01 PERFORMANCE REQUIREMENTS**

- A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
- B. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.

#### **2.02 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS**

- A. Fire Extinguishers: Type, size, and capacity for each mounting bracket indicated.
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Larsen's Model MP20 Steel Cylinder fire extinguisher or comparable product by one of the following:
    - a. Ansul Incorporated.
    - b. Buckeye Fire Equipment Company.
    - c. Guardian Fire Equipment, Inc.
    - d. JL Industries, Inc.; a division of the Activar Construction Products Group (Basis of Design)
  - 2. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B.

- B. Multipurpose Dry-Chemical Type: UL-rated 10A-120B:C nominal capacity, with monoammonium phosphate-based dry chemical in manufacturer's standard enameled container.

### **2.03 MOUNTING BRACKETS**

- A. Mounting Brackets: Manufacturer's standard steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or red baked-enamel finish.
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Larsen's Model 864 mounting bracket or comparable product by one of the following:
    - a. Ansul Incorporated.
    - b. Buckeye Fire Equipment Company.
    - c. Guardian Fire Equipment, Inc.
    - d. JL Industries, Inc.; a division of the Activar Construction Products Group (Basis of Design).
- B. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect.
  - 1. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter decals applied to mounting surface.
    - a. Orientation: Horizontal.

### **2.04 FIRE EXTINGUISHER CABINETS**

- A. Provide fire extinguisher cabinets where indicated, of suitable size for housing fire extinguishers of types and capacities indicated.
- B. Cabinet Type: Suitable for mounting conditions indicated of the following types:
  - 1. Surface-Mounted: Cabinet box (tub) fully exposed and mounted directly on wall.
- C. Trim Style: Fabricate trim in one piece with corners mitered, welded, and ground smooth.
- D. Door Material and Construction: Manufacturer's standard door construction, of material indicated, coordinated with cabinet types and trim styles selected.
  - 1. Aluminum: Manufacturer's standard flush, hollow-aluminum door construction.
- E. Door Style: Manufacturer's standard design as indicated below and on Drawing.
  - 1. Solid Panel: Full flush opaque panel of material indicated.
    - a. Provide silk-screen lettering or design as indicated.
- F. Door Hardware: Provide manufacturer's standard door operating hardware of proper type for cabinet type, trim style, and door material and style indicated. Provide either lever handle with cam action latch, or door pull, exposed or concealed, and friction latch. Provide concealed or continuous type hinge permitting door to open 180 degrees.

## **2.05 FACTORY FINISHING OF FIRE EXTINGUISHER CABINETS**

- A. Comply with NAAMM, "Metal Finishes Manual," for finish designations and application recommendations, except as otherwise indicated. Apply finishes in factory after products are assembled. Protect cabinets with plastic or paper covering prior to shipment.
- B. Anodized Aluminum Finishes: Provide architectural anodic coatings complying with the following requirements:
  - 1. Class II Clear (Natural) Anodized Finish: AA-M12C22A31 (mechanical finish, nonspecular as fabricated; chemical etch, medium matte; 0.4 mil minimum thick, clear anodic coating).

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. Examine fire extinguishers for proper charging and tagging.
  - 1. Remove and replace damaged, defective, or undercharged fire extinguishers.
- B. Install fire extinguishers and mounting brackets in locations indicated and in compliance with requirements of authorities having jurisdiction.
  - 1. Mounting Brackets: 54 inches above finished floor to top of fire extinguisher.
- C. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated, with appropriate fasteners.

END OF SECTION

## **SECTION 10800 - TOILET ACCESSORIES**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### **1.02 SUMMARY**

- A. This Section includes the following toilet accessory items:
  - 1. Toilet tissue dispenser
  - 2. Combination Towel Dispenser/Waste Receptacle
  - 3. Soap dispenser
  - 4. Stainless steel framed mirror units

#### **1.03 SUBMITTALS**

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specifications Sections.
- B. Product Data for each toilet accessory item specified, including details of construction relative to materials, dimensions, gages, profiles, method of mounting, specified options, and finishes.

#### **1.04 QUALITY ASSURANCE**

- A. Inserts and Anchorages: Furnish inserts and anchoring devices that must be set in concrete or built into masonry; coordinate delivery with other work to avoid delay.
- B. Single-Source Responsibility: Provide products of same manufacturer for each type of accessory unit and for units exposed to view in same areas, unless otherwise acceptable to the Architect-Engineer.

#### **1.05 PROJECT CONDITIONS**

- A. Coordination: Coordinate accessory locations, installation, and sequencing with other work to avoid interference and to assure proper installation, operation, adjustment, cleaning, and servicing of toilet accessory items.

#### **1.06 WARRANTY**

- A. Special Project Warranty: Provide manufacturer's written 5-year warranty against silver spoilage of mirrors, agreeing to replace any mirrors that develop visible defects within warranty period.

## **PART 2 - PRODUCTS**

### **2.01 ACCEPTABLE MANUFACTURERS**

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering toilet accessories that may be incorporated in the Work include, but are not limited to, the following:
1. A & J Washroom Accessories.
  2. American Specialties, Inc.
  3. Bobrick Washroom Equipment, Inc.
  4. Bradley Corporation.
  5. General Accessory Manufacturing Co.

### **2.02 MATERIALS, GENERAL**

- A. Stainless Steel: AISI Type 302/304, with polished No. 4 finish, 22-gage (.034-inch) minimum thickness, unless otherwise indicated.
- B. Sheet Steel: Cold-rolled, commercial quality ASTM A 366, 20-gage (.040-inch) minimum, unless otherwise indicated. Surface preparation and metal pretreatment as required for applied finish.
- C. Galvanized Steel Sheet: ASTM A 527, G60.
- D. Chromium Plating: Nickel and chromium electro-deposited on base metal, ASTM B 456, Type SC 2.
- E. Mirror Glass: Nominal 6.0 mm (0.23 inch) thick, conforming to ASTM C1036, Type I, Class 1, Quality q2, and with silvering, electro-plated copper coating, and protective organic coating.
- F. Galvanized Steel Mounting Devices: ASTM A 153, hot-dip galvanized after fabrication.
- G. Fasteners: Screws, bolts, and other devices of same material as accessory unit or of galvanized steel where concealed.
- H. Keys: Unless otherwise indicated, provide universal keys for access to toilet accessory units requiring internal access for servicing, resupply, etc. Provide minimum of six (6) keys to Owner's representative and obtain receipt.

### **2.03 TOILET TISSUE DISPENSERS**

- A. Double-Roll Dispenser: Fabricate of stainless steel for mounting indicated below, size to dispense either 4-1/2" diameter or 5" diameter core tissue rolls.
1. Surface mounted.

### **2.04 COMBINATION TOWEL DISPENSER/WASTE RECEPTACLE UNITS**

- A. Surface Mounted Unit: Stainless steel combination unit fabricated with continuous, seamless wall flange. Towel compartment in upper portion of unit designed to dispense one standard core 8" or 9" wide, 800 foot long roll paper towel. Towel dispenser to deliver up to 5" length of paper per stroke. Waste receptacle in lower portion of unit provided with reusable,

heavy-duty vinyl liner, minimum 18-gallon capacity. Provide flush doors with piano hinges and tumbler locks on upper and lower compartments.

## **2.05 SOAP DISPENSERS**

- A. Liquid Soap Dispenser, Horizontal-Tank Type: Fabricate for surface mounting, sized for 40 fluid ounce minimum capacity. Provide stainless steel piston, springs, and internal parts designed to dispense soap in measured quantity by pump action. Provide cover of type 304 stainless steel in No. 4 finish, with unbreakable window-type refill indicator. Equip unit with push-type valve for dispensing soap in liquid form.

## **2.06 MIRROR UNITS**

- A. Stainless Steel Framed Mirror Units: Fabricate frame with angle shapes of not less than 18 gage (.050 inch), with square corners mitered, welded, and ground smooth. Provide in No. 4 satin polished finish.
- B. Shelves: Fabricate of stainless steel in same gage and finish as mirror frame, approximately 5 inches deep with width of mirror. Turn down and return edges for additional rigidity. Weld shelves securely to bottom of mirror frame.
  - 1. Provide galvanized steel backing sheet, not less than 22 gage (0.34 inch) and full mirror size, with non-absorptive filler material. Corrugated cardboard is not an acceptable filler material.
- C. Mirror Unit Hangers: Provide system of mounting mirror units that will permit rigid, tamper proof, and theft-proof installation, as follows:
  - 1. One-piece galvanized steel wall hanger device with spring action locking mechanism to hold mirror unit in position with no exposed screws or bolts.
  - 2. Heavy-duty wall brackets of galvanized steel, equipped with concealed locking devices requiring special tool to remove.

## **2.07 FABRICATION**

- A. General: Only a maximum 1-1/2-inch diameter, unobtrusive stamped logo of manufacturer, as approved by Architect-Engineer, is permitted on exposed face of toilet or bath accessory units. On either interior surface not exposed to view or back surface, provide additional identification by means of either a printed, waterproof label or a stamped nameplate, indicating manufacturer's name and product model number.
- B. Surface-Mounted Toilet Accessories, General: Except where otherwise indicated, fabricate units with tight seams and joints, exposed edges rolled. Hang doors or access panels with continuous stainless steel piano hinge. Provide concealed anchorage wherever possible.

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. Install toilet accessory units in accordance with manufacturers' instructions, using fasteners appropriate to substrate and recommended by manufacturer of unit. Install units plumb and level, firmly anchored in locations and at heights indicated.

### **3.02 ADJUSTING AND CLEANING**

- A. Adjust toilet accessories for proper operation and verify that mechanisms function smoothly. Replace damaged or defective items.

- B. Clean and polish all exposed surfaces in strict accordance with manufacturer's recommendations after removing temporary labels and protective coatings.

END OF SECTION